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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 09/939,240 | 08/24/2001 | John W. Davies | 38190/206669 | 2206 |
| 826 | 7590 | 12/31/2003 | EXAMINER | |
| ALSTON & BIRD LLP BANK OF AMERICA PLAZA 101 SOUTH TRYON STREET, SUITE 4000 CHARLOTTE, NC 28280-4000 | | | TORRES, MELANIE | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 3683 | |

DATE MAILED: 12/31/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/939,240

Applicant(s)

DAVIES ET AL.

Examiner

Melanie Torres

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/19/03.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, applicant use the term "relatively thin" in line 8. It is unclear to what the coating is relative to.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1, 2, 4 and 6-9 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speakman in view of Tohzuka and Bhatia et al.

Re claims 1 and 7, Speakman teaches a bearing assembly comprising a pair of bearing members (12, 32) movable relative to one another, the pair including a first member (12) and a second member (32) that define a space therebetween. (Column 1, lines 5-13, Figure 1) However, Speakman does not teach wherein at least the first

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member having a bearing surface having a relatively thin coating of a PTFE-based material thereupon and a grease lubricant occupying the space defined between the first member and the second member, wherein the PTFE-based material and the grease lubricant act in conjunction with one another to lubricate the first and second members. Tohzuka discloses a PTFE-based material in a grease medium wherein the PTFE-based material and the grease lubricant act in conjunction with one another.

(Column 3, lines 1-7, Column 4, lines 22-34) It would have been obvious to have used the lubricant of Tohzuka in the assembly of Speakman so as to provide improved sliding surfaces between the two components. It is the examiner's position that, as claimed, the first member is readable as having a PTFE-based material and the grease material as is the second component although it is a mixed material in the lubricant of Tohzuka. Further, it would have been obvious to have used a coating including a thermosetting stabilizer material as taught by Bhatia et al. in order to reduce thermal degradation in high temperature applications. (Column 13, lines 43 – Column 14, line 5)

Re claims 2, 8 and 9, Speakman as modified teaches wherein the coating is a PTFE-based material having a solid particulate in a form selected from the group consisting of flocked, powdered, fibrous, flaked, or beaded. (Column 4, lines 22-34)

Re claims 4 and 11, Speakman teaches wherein the first member (12) is formed from the group consisting of steel, titanium, aluminum, nickel, bronze and alloys thereof. (Column 1, lines 5-7)

Re claim 6, Speakman teaches wherein the coating is a self-lubricating material.

5. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Speakman in view of Tohzuka and Bhatia et al. and further in view of Lee.

Re claims 5 and 12, Lee teaches sliding bearing comprising a seal (84) positioned in the space defined between first and second members. It would have been obvious to have included a seal in the assembly of Speakman as modified so as to reduce the amount of debris that would interfere with the operation of the bearing.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Toyota et al., Goettel et al., teach PTFE/grease lubricants. Chandrasekaran et al. teach thermal stabilizers in PTFE lubricants.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melanie Torres whose telephone number is (703)305-0293. The examiner can normally be reached on Monday-Friday, 6:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Lavinder can be reached on (703)308-3421. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1113.

MT
December 19, 2003



MELANIE TORRES
PATENT EXAMINER

12-19-03